DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-001113 Address: 333 Burma Road **Date Inspected:** 28-Nov-2007

City: Oakland, CA 94607

Project Name: SAS Superstructure **OSM Arrival Time:** 630 **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Lu Jian Ping No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A **Electrode to specification:** Yes No N/A Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A **Approved Drawings:** Yes No N/A **Approved WPS:** Yes No Yes N/A **Delayed / Cancelled:** No

34-0006 **Bridge No: Component:** Tower Mock-up

Summary of Items Observed:

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

WBS Item Description Status Dwg No.

Shear Link UT verifications Tower Mock-up 89 M

The QA Inspector performed 10 % UT evaluation from side A and B on the shear links at the junction of the plate mp517 to p1114; 4 flanges weld joints 9-1, 10-1, 9-2 and 10-2 and 2 webs at the junction of the plates MA26 and p1115 weld joints 27-1 and 27-2 for the subassembly MA26. The QA Inspector discovered that the weld areas tested appeared to be in general compliance with AWS D1.5 2002. See UT report TL_6027 generated on this date.

The QA Inspector performed 10 % UT evaluation from side A and B on the shear link subassembly MA-25 web at the junction of the plates MA-25 to p215, weld joint # 15. The QA Inspector identified a non relevant rejectable indication located at the weld reinforcement which could posibly mask area with a defect. The QA inspector had a conversation with ABF and ZPMC representatives Mr. Kevin Carpenter and Mr. Xu Jun. The QA inspector suggested that the weld reinforcement of the side B at the web splice for the subassembly MA-25 be ground because the QA inspector had a weld profile indication that could mask a relevant indication. ZPMC and ABF agreed to grind (smooth) the weld reinforcement.

Note: Before the QA Inspector started the UT verifications the QA inspector observed that ZPMC did not write on the steel if the welds from the shear links were accepted visually by ZPMC. The QA Inspector had a conversation with the ZPMC representative Mr. Xu Jun. The QA Inspector asked Mr. Xu Jun for visual ZPMC's inspection records. Mr. Xu Jun showed the QA inspector ZPMC's visual Inspection reports for the shear links. The QA Inspector relayed that

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ZPMC agreed previously on the Caltrans's Audit that ZPMC would mark on the steel the results from ZPMC's inspections. Mr. Xu Jun relayed to the QA Inspector that he would convey this information to his supervisors. The QA inspector had a conversation with ABF representative Mr. Kevin Carpenter. The QA Inspector informed Mr. Kevin Carpenter that ZPMC was not marking on the steel the results from the visual weld inspections.

Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Acuna, Alfredo	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer